



10/ 692759

ole
P

TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Patent Number	7,173,281 B2	
	Issued	February 6, 2007	
	First Named Inventor	Yoshiharu HIRAKATA et al.	
	Group Art Unit	2814	
	Examiner Name	Wai-Sing Louie	
Total Number of Pages in This Submission		Attorney Docket Number	740756-2656

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> PTO-1449 <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Declaration and Power of Attorney <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Application Data Sheet <input type="checkbox"/> Request for Corrected Filing Receipt with Enclosures <input type="checkbox"/> A self-addressed prepaid postcard for acknowledging receipt <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): 1) Request for Certificate of Correction 2) Certificate of Correction
Remarks		<input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees required or credit any overpayments to Deposit Account No. 19-2380 for the above identified docket number.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Marc W. Butler, Reg. No. 50,219 Nixon Peabody LLP 401 9 th Street, N.W. Suite 900 Washington, D.C. 20004-2128
Signature	
Date	March 14, 2007

Certificate of Correction
MAR 16 2007

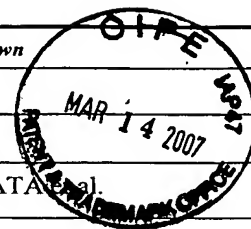
CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]	
I hereby certify that this correspondence is being:	
<input type="checkbox"/> deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop _____, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450	
<input type="checkbox"/> transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (571) 273-8300	
Date	Signature
	Typed or printed name

MAR 19 2007

FEE TRANSMITTAL FOR FY 2005

Complete if Known

Patent Number 7,173,281
Issue Date February 6, 2007
First Named Inventor Yoshiharu HIRAKATA
Examiner Name Wai-Sing Louie
Art Unit 2814
Attorney Docket No. 740756-2656



☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$100.00)

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify):

☒ Deposit Account Deposit Account Number: 19-2380 Deposit Account Name: Nixon Peabody LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-20238.

FEE CALCULATION

1. BASIC FILING, SEARCH AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple document claims	360	180

Total Claims - 20 or HP = Extra Claims Fee (\$)

HP = highest number of total claims paid for, if greater than 20

Indep. Claims - 3 or HP = Extra Claims Fee (\$)

HP = highest number of independent claims paid for, if greater than 3

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets - 100 = Extra Sheets / 50 = Number of each additional 50 or fraction thereof Fee (\$)

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other: Certificate of Correction fee

\$100.00

SUBMITTED BY

Signature Marc W. Butler Registration No. 50,219 Telephone (202) 585-8000
Name (Print/Type) Marc W. Butler Date March 14, 2007

MAR 19 2007



Docket No. 740756-2656

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT application of)
Yoshiharu HIRAKATA et al.) Art Unit: 2814
Serial No. 10/692,759) Examiner: Wai-Sing LOUIE
Patent No. 7,173,281) Confirmation No. 8854
Issued: February 6, 2007)
Filed: October 27, 2003)
For: SEMICONDUCTOR DEVICE AND)
METHOD OF FABRICATING THE)
SAME)

REQUEST FOR CERTIFICATE OF CORRECTION

Mail Stop PETITIONS
Commissioner for Patents
Alexandria, VA 22313-1450

Sir:

Pursuant to 35 U.S.C. § 255, and 37 C.F.R. § 1.323, this is a request for a Certificate of Correction in the above-identified patent. The mistake(s) identified in the appended Form are of a clerical or typographical nature, or of minor character, and resulted from an error made in good faith by patentee(s). Specifically, Applicants request that claims 13, 45, 77, and 107 be amended to change the height of the spacer to 0.5 μm to 10 μm . Such a change should be considered acceptable since the specification states that the range is 0.5 μm to 10 μm (See, for example, col. 6, lines 13-14) and one of skill in the art would therefore recognize "0.5 μm to 10 μm " in the foregoing claims as a clear typographical error.

Applicants authorize the Commissioner to charge the certificate-of-correction fee of \$100, as set forth in 37 C.F.R. § 1.20(a), to Deposit Account No. 19-2380 to cover the costs of issuing the Certificate. Applicants also authorize any additional fees needed in connection with the filing of this request be charged to Deposit Account No. 19-2380.


03/15/2007 MAHRED1 00000056 192380 7173281
01 FC:1811 100.00 DA

MAR 19 2007

Two (2) copies of PTO Form 1050 are appended. The complete Certificate of Correction involves three (3) pages.

Issuance of the Certificate of Correction containing the correction is earnestly requested.

Respectfully submitted,



Jeffrey L. Costellia
Registration No. 35,483

NIXON PEABODY LLP
401 9th Street, N.W., Suite 90
Washington, DC 20004-2128
(202) 585-8000
Fax: (202) 585-8080

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO: 7,173,281 B2

DATED: February 6, 2007

INVENTOR(S): Yoshiharu HIRAKATA et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Claim 13, Column 31 should read --A display device comprising:

a first substrate;
a plurality of pixels arranged in a matrix, each of which comprises a thin film transistor over the first substrate;
an interlayer insulating film over the thin film transistor;
a first alignment film over the interlayer insulating film;
a second substrate;
a plurality of spacers over the second substrate;
a second alignment film on the plurality of spacers and over the second substrate; and
a liquid crystal material interposed between the first alignment film and the second alignment film;
wherein each of the plurality of spacers has a first end, a second end between the first end and the second substrate, and a center portion between the first end and the second end,
wherein a width of the second end is larger than a width of the center portion,
wherein a taper portion is formed at the second end, and
wherein a height of the spacer is 0.5 μ m to ~~110~~ 10 μ m.--

Claim 45, Column 34 should read --A display device comprising:

a first substrate;
a plurality of pixels arranged in a matrix, each of which comprises a thin film transistor over the first substrate;
an interlayer insulating film over the thin film transistor;
a first alignment film over the interlayer insulating film;

a second substrate;
a conductive film over the substrate;
a plurality of spacers on the conductive film;
a second alignment film on the plurality of spacers and on the conductive film; and
a liquid crystal material interposed between the first alignment film and the second alignment film;

wherein each of the plurality of spacers has a first end, a second end between the first end and the second substrate,

wherein a contact surface between the second alignment film and the spacer is continuously connected to a contact surface between the second alignment film and the conductive film,

wherein a taper portion is formed at the second end, and

wherein a height of the spacer is $0.5\mu\text{m}$ to ~~110~~ $10\mu\text{m}$.—

Claim 77, Column 36 should read --A display device comprising:

a first substrate;
a plurality of pixels arranged in a matrix, each of which comprises a thin film transistor over the first substrate;

an interlayer insulating film over the thin film transistor;

a first alignment film over the interlayer insulating film;

a second substrate;

a plurality of spacers over the second substrate;

a second alignment film on the plurality of spacers and over the second substrate;

a liquid crystal material interposed between the first alignment film and the second alignment film;

wherein each of the plurality of spacers has a first end, a second end between the first end and the second substrate, a center portion between the first end and the second end, and a lower portion between the center portion and the second end,

wherein an angle between a tangent plane at a center portion and a surface of the second substrate is larger than an angle between a tangent plane at a lower portion and the surface of the second substrate, and

wherein a height of the spacer is $0.5\mu\text{m}$ to ~~110~~ $10\mu\text{m}$.--

Claim 107, Column 39 should read --A display device comprising:

- a first substrate;
- a plurality of pixels arranged in a matrix, each of which comprises a thin film transistor over the first substrate;
- an interlayer insulating film over the thin film transistor;
- a first alignment film over the interlayer insulating film;
- a second substrate;
- a plurality of spacers over the second substrate;
- a second alignment film on the plurality of spacers and over the second substrate; and
- a liquid crystal material interposed between the first alignment film and the second alignment film;

wherein each of the plurality of spacers has a first end, a second end between the first end and the second substrate, and a center portion between the first end and the second end,

wherein a width of the second end L_2 and a width of the center portion L_1 are set in the range of $1 < L_2 / L_1 < 2.5$, and

wherein a height of the spacer is $0.5\mu\text{m}$ to ~~110~~ 10 μm .--

MAILING ADDRESS OF SENDER:

NIXON PEABODY LLP
Suite 900, 401 9th Street, N.W.
Washington, D.C. 20004-2128

PATENT NO. 7,173,281

No. of additional copies



SEND TO: United States Patent and Trademark Office
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

MAR 19 2007

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO: 7,173,281 B2

DATED: February 6, 2007

INVENTOR(S): Yoshiharu HIRAKATA et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Claim 13, Column 31 should read --A display device comprising:

a first substrate;

a plurality of pixels arranged in a matrix, each of which comprises a thin film transistor over the first substrate;

an interlayer insulating film over the thin film transistor;

a first alignment film over the interlayer insulating film;

a second substrate;

a plurality of spacers over the second substrate;

a second alignment film on the plurality of spacers and over the second substrate; and

a liquid crystal material interposed between the first alignment film and the second alignment film;

wherein each of the plurality of spacers has a first end, a second end between the first end and the second substrate, and a center portion between the first end and the second end,

wherein a width of the second end is larger than a width of the center portion,

wherein a taper portion is formed at the second end, and

wherein a height of the spacer is 0.5 μ m to ~~110~~ 10 μ m.--

Claim 45, Column 34 should read --A display device comprising:

a first substrate;

a plurality of pixels arranged in a matrix, each of which comprises a thin film transistor over the first substrate;

an interlayer insulating film over the thin film transistor;

a first alignment film over the interlayer insulating film;

a second substrate;
 a conductive film over the substrate;
 a plurality of spacers on the conductive film;
 a second alignment film on the plurality of spacers and on the conductive film; and
 a liquid crystal material interposed between the first alignment film and the second alignment film;

wherein each of the plurality of spacers has a first end, a second end between the first end and the second substrate,

wherein a contact surface between the second alignment film and the spacer is continuously connected to a contact surface between the second alignment film and the conductive film,

wherein a taper portion is formed at the second end, and

wherein a height of the spacer is $0.5\mu\text{m}$ to ~~110~~ 10 μm .—

Claim 77, Column 36 should read --A display device comprising:

a first substrate;
 a plurality of pixels arranged in a matrix, each of which comprises a thin film transistor over the first substrate;

an interlayer insulating film over the thin film transistor;

a first alignment film over the interlayer insulating film;

a second substrate;

a plurality of spacers over the second substrate;

a second alignment film on the plurality of spacers and over the second substrate;

a liquid crystal material interposed between the first alignment film and the second alignment film;

wherein each of the plurality of spacers has a first end, a second end between the first end and the second substrate, a center portion between the first end and the second end, and a lower portion between the center portion and the second end,

wherein an angle between a tangent plane at a center portion and a surface of the second substrate is larger than an angle between a tangent plane at a lower portion and the surface of the second substrate, and

wherein a height of the spacer is $0.5\mu\text{m}$ to ~~110~~ 10 μm .--

Claim 107, Column 39 should read --A display device comprising:

- a first substrate;
- a plurality of pixels arranged in a matrix, each of which comprises a thin film transistor over the first substrate;
- an interlayer insulating film over the thin film transistor;
- a first alignment film over the interlayer insulating film;
- a second substrate;
- a plurality of spacers over the second substrate;
- a second alignment film on the plurality of spacers and over the second substrate; and
- a liquid crystal material interposed between the first alignment film and the second alignment film;

wherein each of the plurality of spacers has a first end, a second end between the first end and the second substrate, and a center portion between the first end and the second end,

wherein a width of the second end L_2 and a width of the center portion L_1 are set in the range of $1 < L_2 / L_1 < 2.5$, and

wherein a height of the spacer is $0.5\mu\text{m}$ to ~~110~~ 10 μm .--

MAILING ADDRESS OF SENDER:

NIXON PEABODY LLP
Suite 900, 401 9th Street, N.W.
Washington, D.C. 20004-2128

PATENT NO. 7,173,281

No. of additional copies

→

SEND TO: United States Patent and Trademark Office
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

1997 1 9 2007